

SYSTEM AND METHOD FOR LOOP UNROLLING IN A DYNAMIC COMPILER

ABSTRACT OF THE DISCLOSURE

5 Provided is a method for performing loop-unrolling optimization during program execution. In one example, a method for loop optimization within a dynamic compiler system is disclosed. A computer program having a loop structure is executed, wherein the loop structure includes a loop exit test to be performed during each loop iteration.

10 The loop structure is compiled during the execution of the computer program, and an unrolled loop structure is created during the compiling operation. The unrolled loop structure includes plurality of loop bodies based on the original loop structure. Further, the unrolled loop structure can include the loop exit test, which can be performed once for each iteration of the plurality of loop bodies.